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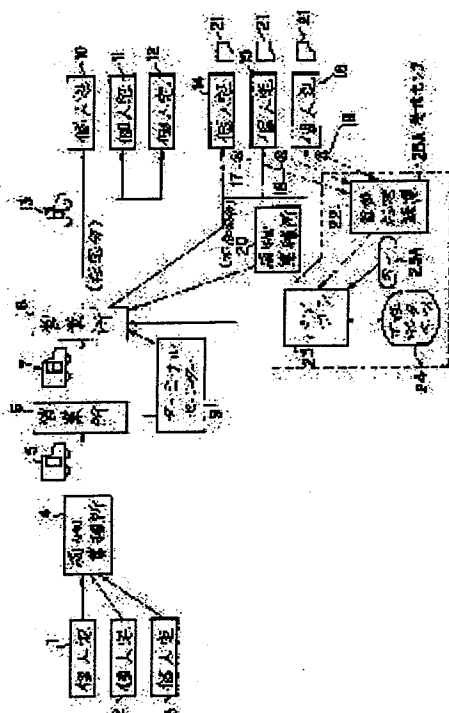
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(54) HOME DELIVERY SYSTEM

(57)Abstract:

PURPOSE: To efficiently operate the delivery to an absent house.

CONSTITUTION: A delivery-man of a home delivery company puts an absence information slip 21 at customer's houses being absent houses 14-16 and brings a goods back. When a person living in the customer's houses 14-16 goes home, he communicates delivery information such as a desired delivery date to a voice responding device 22 of an accepting center 25A provided at a business office 8 over telephones 17-19 while looking at the absence information slip 21, The communicated delivery information is inputted to a personal computer 23, and an absence data base 24 is constructed. When the staff of the business office 8 inputs a telephone number and a particle number from a key 23A, and retrieves the absence data base 24

by the personal computer 23, the history of the desired delivery date of the absent house or the like is list-outputted. The staff of the business office 8 can decide the delivery date from the list output.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] This invention relates to the delivery system which collects and delivers loading.

[0002]

[Description of the Prior Art] <u>Drawing 12</u> is the block diagram of the conventional example of a delivery system.

[0003] The loading of homes 1, 2, and 3 is brought together in the loading dump 4. The loading collected here is sent to an office 6 by the truck 5. The loading sent to the office 6 is sent to an office 8 through the direct or terminal pin center,large 9 by the truck 7. The loading brought together in the loading dump 20 is also sent to an office 8. The loading sent to the office 8 is delivered by the predetermined destination with a truck 13. In this case, all loading is delivered about the homes 10, 11, and 12 of being home. However, about the homes 14, 15, and 16 which were not at home, it becomes undivided. About these homes 14-16, the delivery member leaves the message to homes 14-16, an office 8 is telephoned by telephone 17-19 after the man of homes 14-16 going home, an official in charge answers, the information on the delivery time of choice is collected, and delivery is made based on this information, or delivery is made repeatedly several times, and delivery is completed.

[0004]

[Problem(s) to be Solved by the Invention] Since the personnel of a home-delivery company decided on the delivery time of choice by telephone consultation about the absent destination, and the conventional delivery system mentioned above delivered loading again, or it delivered loading repeatedly until it was at home, it had the following faults.

(1) There was a limitation in the time zone which the personnel of a home-delivery

company **** to a telephone, and **** in time amount late night or early morning was impossible.

(2) In the home-delivery company, the personnel who answer a telephone are required, the part labor cost was applied, and delivery cost was pressed.

(3) Since the information on the delivery time of choice was collected by the help, an absent database could not be built, and the collected information was not efficiently employed in the delivery on and after next time.

(4) When delivery was repeated several times, delivery effectiveness fell and delivery cost had started too many.

[0005] The object of this invention is offering the delivery system which performs delivery to being un-at home efficiently.

[0006]

[Means for Solving the Problem] In order to attain the above-mentioned object, the 1st delivery system of this invention Information including the delivery time of choice spent from being un-at home through a communication line, answering with being un-at home The information received with the audio response unit to receive and this audio response unit is inputted. The absent database of the information on the delivery time [at home] of choice is built, and the data processor which searches said absent database and outputs the hysteresis of the delivery time of choice it is not [which was specified / time] at home is installed in the office of a home-delivery company.

[0007] The 2nd delivery system of this invention information including the delivery time of choice spent from being un-at home through a communication line, answering with being un-at home The information read with the facsimile character reader to read and this facsimile character reader is inputted. The absent database of the information on the delivery time [at home] of choice is built, and the data processor which searches said absent database and outputs the hysteresis of the delivery time of choice it is not [which was specified / time] at home is installed in the office of a home-delivery company.

[0008]

[Function] This invention collects the information which includes the delivery time [at home] of choice using an audio response unit or a facsimile character reader, builds an absent database, searches this database, and decides on delivery time [at home].

[0009] In addition, the data of an absent database or the received data from being un-at home is enciphered, and it may be made to carry out confidentiality of these data. Information, such as a delivery day of choice, can collect required information certainly and easily, when a delivery member transmits to an audio response unit or a facsimile

character reader according to the absent communication table which it left to being un-at home. By searching a database using a customer's telephone number, required information can be retrieved certainly and easily. It can cut down on delivering being un-at home extremely by processing a statistical procedure etc. into the data of an absent database, predicting the time of a customer's at-home day to them, and deciding on suitable delivery time as them.

[0010]

[Example] Next, the example of this invention is explained with reference to a drawing.

[0011] It is drawing which the flow chart of the delivery time information gathering [in / in drawing in which drawing 1 shows delivery structure-of-a-system drawing of the 1st example of this invention, and drawing 2 shows an absent communication vote (text), drawing in which drawing 3 shows an absent communication vote (attached sheet 1), drawing in which drawing 4 shows an absent communication vote (the 2), drawing 5 , and drawing 6 / this example] of choice, and drawing 7 show the flow chart of retrieval of the absent database 24, and is shown [drawing 8] in the hysteresis of the delivery time of choice, and the example of a home prediction day of listing.

[0012] Reception pin center,large 25A which becomes the delivery system of the conventional example of drawing 12 from an audio response unit 22, a personal computer 23, and the absent database 24 is attached to an office 8, and the delivery system of this example is constituted.

[0013] In this example, when the home where the delivery member carried out loading to delivery is absent, the absent communication vote 21 is set being [the] un-at home. This absent communication vote 21 consists of the three sections of the text (drawing 2), an attached sheet 1 (drawing 3), and an attached sheet 2 (drawing 4). The text is a greeting sentence. Among the text, "they are usually facilities, cool parcel delivery service, and golf facilities and --" is the class of facilities to deliver, and they surround that to which the delivery member of a home-delivery company corresponds with a circle. An attached sheet 1 is used when connecting the delivery time of choice etc. to reception pin center,large 25A by telephone from being un-at home. An attached sheet 2 is used when connecting the delivery time of choice etc. to reception pin center,large 25A by facsimile from being un-at home. Since information, such as delivery time of choice, is connected to reception pin center,large 25A by telephone in this example, an attached sheet 1 will be used.

[0014] In case a man [at home] goes home, and an audio response unit 22 looks at the attached sheet 1 of the absent communication vote 21 and connects the delivery time of choice etc. by telephone, it inputs into reception and a personal computer 23 the

delivery information that answered a sink and it and the advice message was inputted by telephone, such as delivery time of choice. If the absent database 24 is built based on the delivery information inputted from the audio response unit 22 and the personnel of an office 8 input the telephone number and a loading number using key 23A, a personal computer 23 will search the absent database 24, and will carry out listing of the hysteresis of the delivery day of choice etc.

[0015] Next, actuation of this example is explained.

[0016] The loading which the loading of homes 1, 2, and 3 was brought together in the loading dump 4, and was collected here is sent to an office 6 by the truck 5. The loading sent to the office 6 is sent to an office 8 through the direct or terminal pin center,large 9 by the truck 7. The loading brought together in the loading dump 20 is also sent to an office 8. The loading sent to the office 8 is sent to a predetermined destination by the truck 13. All loading is delivered about the homes 10, 11, and 12 of being home. About the homes 14, 15, and 16 which were not at home, a delivery member brings loading home for the absent communication vote 21 shown by drawing 2 , drawing 3 , and drawing 4 in homes 14, 15, and 16. Then, if people go home, for example at a home 14, the man will look at the text (drawing 2) of the absent communication vote 21. It gets to know that the home-delivery company came for delivery of loading the inside of absent, and if it has an attached sheet 1 (drawing 3) in a hand and reception pin center,large 25A is telephoned by telephone 17, according to the flow chart of drawing 5 and drawing 6 , collection of the information on the delivery time of choice will be performed between a home 14 and reception pin center,large 25A. First, if reception pin center,large 25A is telephoned from a home 14 (step 30), a message will be received in an audio response unit 22. If the man of a home 14 asks (step 31), **** 1 message will flow [**] the input of a loading number from an audio response unit 22 (step 32). If the man of a home 14 answers a loading number by the push button (step 33), **** 2 message will flow [**] the input of the telephone number from an audio response unit 22 (step 34). If the man of a home 14 inputs the telephone number (step 35), **** 3 message will flow [**] the delivery sunset force of choice from an audio response unit 22 (step 36). If the man of a home 14 inputs the day wishing delivery (step 37), **** 4 message will flow [**] the input of the delivery time zone of choice from an audio response unit 22 (step 38). If the man of a home 14 inputs the delivery time zone of choice (step 39), the 5th message which checks a delivery day and a delivery time zone from an audio response unit 22 will flow (step 40). The man of a home 14 answers the 5th message and inputs "1" or "2" (step 41). As for an audio response unit 22, any of "1" and "2" judge whether it was inputted (step 42). If "1" is inputted, processing will be

repeated from step 32, if "2" is inputted, the 6th message which is the greeting of termination will flow from an audio response unit 22 (step 43), and collection of the delivery time information of choice is completed. Delivery information is similarly collected about being [15 and 16] un-at home. Since the absent database 24 is not yet built in this phase, the delivery to being [14-16] un-at home is made using the information on the collected delivery time of choice. Based on the these-collected delivery information, the absent database 24 is built with a personal computer 23. After the absent database 24 is built, it decides on a delivery day [at home] as follows, and delivery is performed. First, the personnel of an office 8 will decide on the time which searches and delivers the absent database 24 about the loading which reached the office 8 in the flow chart of <u>drawing 1</u> . First, if the personnel of an office 8 input the destination telephone number and a loading number into a personal computer 23 using key 23A (step 50), a personal computer 23 will search the absent database 24 by this telephone number and this loading number (step 51). If a personal computer 23 has absent hysteresis and there will be no absent hysteresis about the delivery day of choice, and home anticipation time, it will carry out listing of the * mark in a format like <u>drawing 8</u> . And a delivery member decides on delivery time based on the information by which listing was carried out, and delivers loading.

[0017] It is the flow chart of the delivery time information gathering [in / <u>drawing 9</u> , and / in <u>drawing 10</u> / this example] of choice. [delivery structure-of-a-system drawing of the 2nd example of this invention]

[0018] This example delivers by collecting the delivery time information of choice are not at home, using facsimile, and deciding on delivery time. For this reason, in this example, homes 14 and 15 are equipped with facsimile 27 and 28, respectively (since a home 16 is not equipped with facsimile, the facsimile 29 of the loading dump 20 will be used), and reception pin center,large 25B is equipped with the facsimile character reader 26 instead of the audio response unit 22 of the 1st example. Moreover, this example connects information, such as delivery time of choice, to reception pin center,large 25B using the attached sheet 2 (<u>drawing 4</u>) of the absent communication vote 21.

[0019] Next, actuation of this example is explained.

[0020] About the homes 14, 15, and 16 which were not at home, it is the same as the 1st example until a delivery member brings loading home for the absent communication vote 21 in homes 14, 15, and 16. For example, if people go home at a home 14, the man will look at the text (<u>drawing 2</u>) of the absent communication vote 21, will get to know that the home-delivery company came for delivery of loading the inside of absent, and

will write down a loading number, the telephone number, the day wishing delivery, and the time amount wishing delivery in the attached sheet 2 (<u>drawing 4</u>) of the absent communication vote 21. Henceforth, according to the flow chart of <u>drawing 10</u> and <u>drawing 11</u> , collection of the information on the delivery time of choice is performed between a home 14 and reception pin center,large 25B. First, if the man of a home 14 telephones reception pin center,large 25B (step 60), a message will be received in the facsimile character reader 26, and the 1st salutatory response will be sent from reception pin center,large 25B (step 61). If the sound which can be transmitted flows, the man of a home 14 will send the absent communication vote 21 (attached sheet 2) which indicated the need matter by facsimile 27 (step 62). The facsimile character reader 26 of reception pin center,large 25B reads the sent absent communication vote 21 (attached sheet 2) by OCR (step 63), and ** passes **** 2 response for a check and figure input of the content of the sent absent communication vote 21 (attached sheet 2) in facsimile 27 (step 64). If the man of a home 14 inputs a figure (1 or 9) (step 65) The facsimile character reader 26 judges this figure input (step 66). If it is "9", the absent communication vote 21 (attached sheet 2) will be rewritten, if ** are return and "1" to delivery (step 67) and step 62 about **** 3 response with resending at facsimile 27, an end message will be sent to facsimile 27 (step 68), and collection of the delivery time information of choice will be completed. Since future actuation is the same as the 1st example, the explanation is omitted.

[0021] In addition, the time of the at-home day of the customer who performs data processing (for example, statistical procedure) on the delivery day of choice, and has absent possibility is predicted based on the absent database 24, and it can decide on suitable delivery time. Moreover, Figure OCR etc. can be used instead of key 23A, and the absent database 24 can also be searched. Moreover, when it is never able to lead to an audio response unit 22 or the facsimile character reader 26 or delivery time information of choice is not able to be well inputted into an audio response unit 22 or the facsimile character reader 26, the personnel of an office 8 have been enough at the telephone, and aid can be given by using an answering machine. Furthermore, security equipment can be arranged between each absent **, between audio response units 22 and each absent **, and the facsimile character reader 26, and between a personal computer 23 and the absent database 24, data can be enciphered, and confidentiality of the data of the absent database 24 can also be carried out.

[0022] The delivery system of an example explained above has the following advantages. (1) A driver's operation time decreases, a driver's labor environment improves and the case where work is stopped decreases at the same time absent delivery decreases.

(2) Since reception of the delivery information are not at home is performed using an audio response unit or a facsimile character reader, the reception operation which was always sticking 1-2 girls until now can be abolished, therefore a help can be reduced, and effective arrangement of the staff to the work which should do original can be performed.

(3) If a database [at home] is built, by getting to know the home anticipation time of the past of a destination, the case delivered at the time of an absence becomes rare, and efficient delivery can be performed.

(4) Since a system can be miniaturized and I have a delivery contractor's telex rate etc. applied from a customer as compared with the system which gives all destinations an inquiry before delivery, it can reduce, and the system of a suitable beneficiary charge can be constituted.

[0023]

[Effect of the Invention] As explained above, this invention has the following effectiveness.

(1) Invention of claims 1 and 2 has the following effectiveness by collecting the information on the delivery time [at home] of choice using an audio response unit or a facsimile character reader, building an absent database, searching this database, and deciding on delivery time [at home].

[0024] ** Useless delivery is lost and a driver's operation time decreases.

[0025] ** In order to check the time of an at-home day using an audio response unit or a facsimile character reader, there may be few helps.

[0026] ** Since it is the format of asking the time of an at-home day only when absent, it is efficient.

[0027] ** Since home information is heard only about being un-at home, the system of suitable magnitude is made cheaply.

(2) Invention of claim 3 can carry out confidentiality of such information by enciphering the data of an absent database, or the receipt information from being un-at home.

(3) Invention of claim 4 can collect required information certainly and easily by inputting information, such as delivery time of choice, using an absent communication table.

(4) Invention of claim 5 can retrieve required information certainly and easily by searching an absent database using a customer's telephone number.

(5) Invention's of claim 6 delivering being un-at home decreases extremely by predicting the time of the at-home day of the customer who processes the data of an absent database and has absent possibility, and deciding on suitable delivery time.

[Translation done.]

* NOTICES *

CLAIMS

[Claim(s)]

[Claim 1] The information which includes the delivery time of choice spent from being un-at home through a communication line in the delivery system which collects and delivers loading, answering with being un-at home The information received with the audio response unit to receive and this audio response unit is inputted. The delivery system characterized by installing the data processor which builds the absent database of the information on the delivery time [at home] of choice, searches said absent database, and outputs the hysteresis of the delivery time of choice it is not [which was specified / time] at home in the office of a home-delivery company.

[Claim 2] The information which includes the delivery time of choice spent from being un-at home through a communication line in the delivery system which collects and delivers loading, answering with being un-at home The information read with the facsimile character reader to read and this facsimile character reader is inputted. The delivery system characterized by installing the data processor which builds the absent database of the information on the delivery time [at home] of choice, searches said absent database, and outputs the hysteresis of the delivery time of choice it is not [which was specified / time] at home in the office of a home-delivery company.

[Claim 3] The delivery system according to claim 1 or 2 by which the data of said absent database or the receipt information from being un-at home is enciphered.

[Claim 4] A delivery system given in any 1 term of claims 1-3 which transmit information including the delivery time of choice to said audio response unit or said facsimile character reader according to the guy wardrobe of the absent communication table which the delivery member left.

[Claim 5] Said data processor is a delivery system given in any 1 term of claims 1-4 which search said database by making a customer's telephone number into a retrieval keyword.

[Claim 6] A delivery system given in any 1 term of claims 1-5 which predict the time of the at-home day of a customer with absent possibility based on the data of said absent database, and decide on suitable delivery time as it.

[Translation done.]